

# Product Information Packet

November 9, 2016

Data shown is for the current revision model #. Ensure your nameplate model # matches.

|                            |                      |
|----------------------------|----------------------|
| <b>Model Number:</b>       | <b>5KS405LAA325B</b> |
| <b>Catalog Number:</b>     | <b>M7691</b>         |
| <b>Instruction Manual:</b> | GEI-56128            |
| <b>Connection Diagram:</b> | GEM2034E-FIG1        |
| <b>Outline Drawing:</b>    | 239CC400AA           |

| Accessory Connection Diagrams |      |                              |      |
|-------------------------------|------|------------------------------|------|
| <b>Bearing Thermocouple:</b>  | None | <b>Heater:</b>               | None |
| <b>RTD:</b>                   | None | <b>Thermistor:</b>           | None |
| <b>Thermostat:</b>            | None | <b>Winding Thermocouple:</b> | None |
| <b>Bearing RTD:</b>           | None |                              |      |

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**Marks:**

|                            |                      |                               |           |
|----------------------------|----------------------|-------------------------------|-----------|
| <b>MODEL NUMBER:</b>       | <b>5KS405LAA325B</b> | <b>Estimated Weight:</b>      | 1430 Lbs  |
| <b>Outline Drawing:</b>    | 239CC400AA           | <b>Time Rating:</b>           | CONT      |
| <b>Connection Diagram:</b> | GEM2034E-FIG1        | <b>Enclosure:</b>             | TEFC      |
| <b>Instruction Book:</b>   | GEI-56128            | <b>Encl Construction:</b>     | SD        |
| <b>Design Code:</b>        | 40BD3055A            | <b>Ambient Max(°C):</b>       | 40        |
| <b>Type:</b>               | KS                   | <b>Alt Ambient Max(°C):</b>   | --        |
| <b>Frame:</b>              | 405T                 | <b>Insulation Class:</b>      | F         |
| <b>Phases:</b>             | 3                    | <b>NEMA Design:</b>           | A         |
| <b>Poles:</b>              | 6                    | <b>Nominal Efficiency:</b>    | 94.5 %    |
| <b>Output Power:</b>       | 75HP 55.5KW          | <b>Guaranteed Efficiency:</b> | 93.6      |
| <b>RPM:</b>                | 1190                 | <b>3/4 Load Efficiency:</b>   | 94.6      |
| <b>Voltage:</b>            | 460                  | <b>KVA Code:</b>              | G         |
| <b>Hertz:</b>              | 60                   | <b>Max KVAR:</b>              | 29.6      |
| <b>Amps - FL:</b>          | 92.9                 | <b>Power Factor:</b>          | 80.0      |
| <b>Service Factor:</b>     | 1.15                 | <b>Bearing - DE:</b>          | NU 316    |
| <b>Alt Service Factor:</b> | --                   | <b>Bearing - ODE:</b>         | 6316ZC3S0 |

**Enclosure is Totally Enclosed Fan-Cooled**

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**Stamped Nameplate Notes:**

ROLLER BEARING - FOR BELTED LOAD ONLY  
 INVERTER DUTY PER NEMA MG1 PART 31  
 ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT  
 VAR TORQUE RANGE 0-60 HZ

**Additional Information:**

6P - T EXTN  
 700 CU IN - 3.00" NPT  
 OIL RESISTANT SLEEVING ON LEADS  
 B5F4C4 HIGH FATIGUE STEEL AISI 4142 SHAFT MATERIAL  
 F1 MOUNTING  
 VIBRATION LIMIT 0.0024 INCH PEAK TO PEAK

**Performance Characteristics**

1st Winding 1st Connection

**Design: 40BD3055A**

**Marks:**

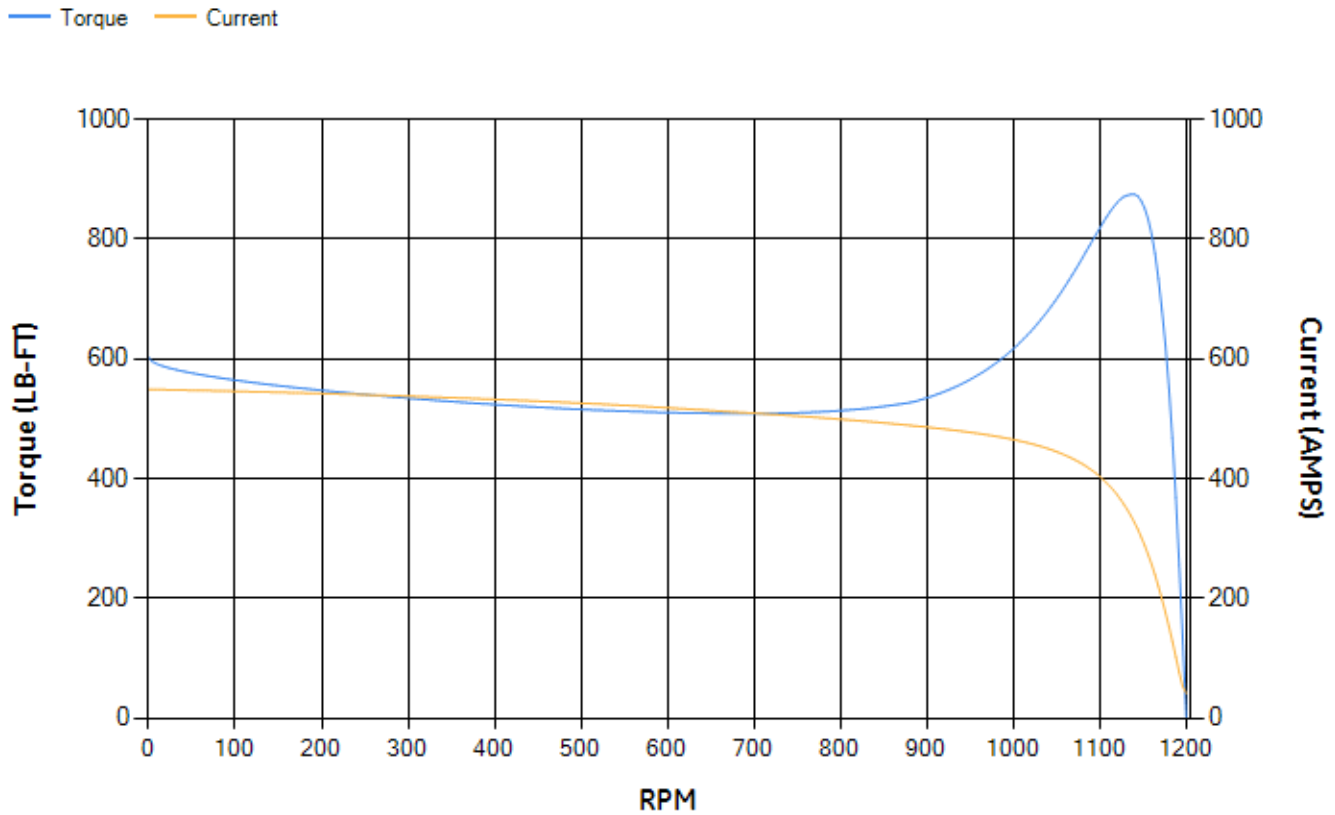
| LOAD % | 125.0  | 115.0  | 100.0 | 75.0  | 50.0  | 25.0  | 0.0   |
|--------|--------|--------|-------|-------|-------|-------|-------|
| % EFF  | 93.82  | 94.08  | 94.59 | 94.62 | 94.17 | 91.28 | 0.00  |
| % PF   | 82.49  | 81.76  | 80.06 | 74.74 | 63.67 | 41.19 | 3.29  |
| AMPS   | 113.38 | 104.95 | 92.51 | 74.44 | 58.53 | 46.68 | 41.21 |

|                    |        |                    |        |                    |        |
|--------------------|--------|--------------------|--------|--------------------|--------|
| <b>TORQ(FL)#FT</b> | 331.31 | <b>TORQ(LR)%FL</b> | 181.89 | <b>TORQ(BD)%FL</b> | 263.17 |
| <b>AMPS(LR)</b>    | 548.94 | <b>PF AT START</b> | 0.35   |                    |        |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 4906 Lb-Ft Sq (206.54 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 42 seconds. Safe stall time at 100% voltage is 103 seconds cold, 56 seconds hot. Rotor inertia is 30.95 Lb-Ft Sq (1.3 Kg-meter Sq).

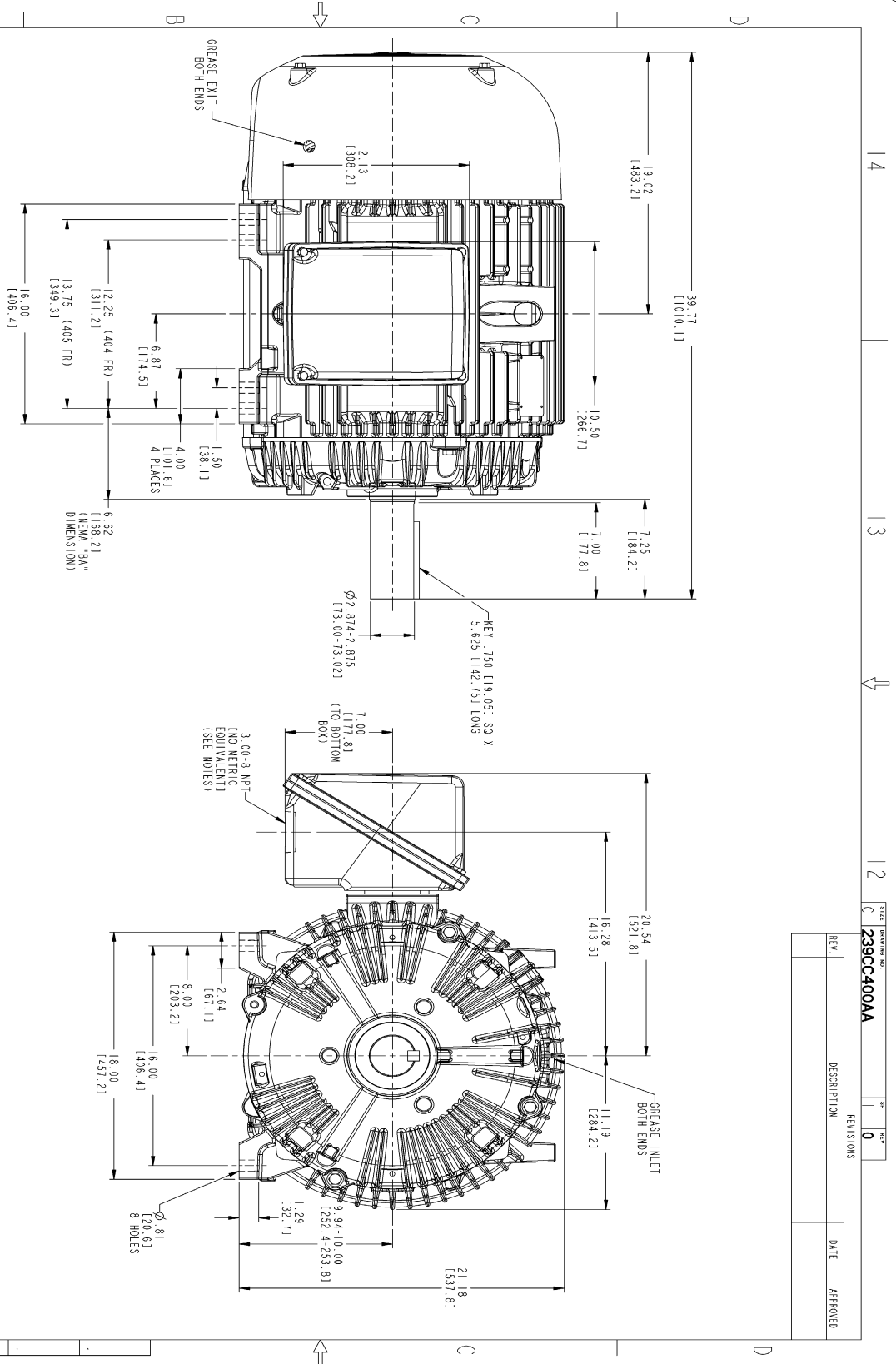
|                           |       |                           |       |
|---------------------------|-------|---------------------------|-------|
| <b>Open Circuit A-C:</b>  | 0.58  | <b>Short Circuit D-C:</b> | 0.021 |
| <b>Short Circuit A-C:</b> | 0.038 | <b>X/R Ratio:</b>         | 7.766 |
| <b>Stator Slots:</b>      | 72    | <b>Rotor Slots:</b>       | 58    |

**Speed Torque Current Curve (First Connection, First Speed)**



NAME:501352727 OBJECT:239CC400AA DATE:31-Jul-07 12:31:11

Marks:



- NOTES:
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE.
  2. F-1 ASSEMBLY AS SHOWN.
  3. F-2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE.
  4. BRACKETED DIMENSIONS ARE METRIC (MILLIMETERS).

|      |             |      |          |
|------|-------------|------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
|      |             |      |          |

|                             |                  |   |
|-----------------------------|------------------|---|
| SIGNATURES                  | DATE             | <b>GE Industrial Systems</b><br>GENERAL ELECTRIC COMPANY<br>Fort Wayne, Indiana |
| DESIGNED BY: SAJAN 01/21/07 | DATE: 01/21/07   |   |
| DRAWN BY: SAJAN 01/21/07    | DATE: 01/21/07   | <b>OUTLINE</b><br>404/405 T TEFC ESP<br>700 CU. IN. CONDUIT BOX<br>239CC400AA   |
| APPLIED PRACTICES           | SHEET/DRAWING: C |   |
| SCALE: 0.220                | REF. NO.:        | SHEET 1 OF 1  |

DISTRIBUTION: MMP

Marks:

**Connection Diagram**  
**GEM2034E-FIG1**

